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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,283	10/03/2005	Norihiko Kaga	Q90653	1993
23373	7590	10/31/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FANG, JERRY C	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/552,283

Applicant(s)

KAGA ET AL.

Examiner

Jerry Fang

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 78-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 78-84 and 86-89 is/are rejected.
- 7) ☒ Claim(s) 85 and 90 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/3/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 78-84 and 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (US 2002/0050976) in view of Endo et al. (US 5,189,337).

Regarding claim 78, Yamaguchi discloses at least two groups of the image display media (Fig. 1, 18 and 20) sealed between opposed substrates (Fig. 1, 202 and 203), at least one of two substrates being transparent (Abstract), and in which the image display media, to which an electrostatic field generated between two electrodes (Fig. 1, 205a and 205b) having different potentials is applied, are made to move so as to display an image, wherein one of the two groups of the particles having different charge characteristics and different optical reflectance included in the at least two groups of the image display media (Abstract), one of the two groups of the particles has a surface on which no macroscopic concavo-convex portion exists (Fig. 1, 18 and 20). Yamaguchi failed to disclose one of the two groups of the particles has a surface on which a macroscopic concavo-convex portion exists. Endo discloses one of the two groups of the particles has a surface on which a macroscopic concavo-convex portion exists (Col.

1, Lines 51-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the particles with concavo-convex portion as taught by Endo, with the optical device of Yamaguchi, since as shown by Endo, particles with concavo-convex portion is commonly used in order to construct an optical device.

Regarding claim 79, Yamaguchi discloses at least two groups of the image display media (Fig. 1, 18 and 20) sealed between opposed substrates (Fig. 1, 202 and 203), at least one of two substrates being transparent (Abstract), and in which the image display media, to which an electrostatic field generated between two electrodes (Fig. 1, 205a and 205b) having different potentials is applied, are made to move so as to display an image, wherein one of the two groups of the particles having different charge characteristics and different optical reflectance included in the at least two groups of the image display media (Abstract), one of the two groups of particles has a surface on which no macroscopic concavo-convex portion exists and on which fine particles (Para. 0016-0020). Yamaguchi fails to disclose one of the two groups of the particles has a surface on which a macroscopic concavo-convex portion exists. Endo discloses one of the two groups of the particles has a surface on which a macroscopic concavo-convex portion exists (Col. 1, Lines 51-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the particles with concavo-convex portion as taught by Endo, with the optical device of Yamaguchi, since as shown by Endo, particles with concavo-convex portion is commonly used in order to construct an optical device.

Regarding claims 80-84, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Regarding claim 86, Yamaguchi discloses the claimed invention except for the range of average particle diameter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the appropriate range for the average particles diameter, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 87, Yamaguchi discloses the claimed invention except for the range of average fine particle diameter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the appropriate range for the average fine particle diameter, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 88, Yamaguchi discloses the claimed invention except for the range of volume occupying rate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the appropriate range of

volume occupying range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 89, Yamaguchi disclose an image display panel (Fig. 1, 202 and Abstract).

Allowable Subject Matter

Claims 85 and 90 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The allowable feature being: a reverse charge polarity with respect to a charge polarity of the particles having the surface, on which no macroscopic concavo-convex portion exists, and, the fine particles do not change a polarity of the particles having the surface, on which no macroscopic concavo-convex portion exists, after being adhered (claim 85).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Fang whose telephone number is 5712726013. The examiner can normally be reached on 10-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 5712722333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

A handwritten signature in black ink, appearing to read 'Tim Thompson', with a large loop at the end.

**TIMOTHY THOMPSON
PRIMARY EXAMINER**

Art Unit: 2873

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.F.

10/25/2006